

Message

From: Hegeman, Frederick J - DNR [Frederick.Hegeman@wisconsin.gov]
Sent: 3/29/2017 5:16:48 PM
To: Maraldo, Dean [Maraldo.Dean@epa.gov]; Postma, Scott [Postma.Scott@epa.gov]
CC: Hegeman, Frederick J - DNR [Frederick.Hegeman@wisconsin.gov]; Gayan, Sharon L - DNR [Sharon.Gayan@wisconsin.gov]; Stocks, Adrian G - DNR [Adrian.Stocks@wisconsin.gov]; Hartsook, Bryan D - DNR [Bryan.Hartsook@wisconsin.gov]
Subject: FW: Dryer

FYI.

Last week while organizing/attending Wisconsin's Spring Biosolids Symposium, I spoke with Steve Unger and Sid Arora from the Milwaukee Metropolitan Sewerage District.

I asked more about the district's process for monitoring the air temperature using the conduit as shown during the Milorganite Audit on March 14, 2017. They explained several issues regarding:

1. The exact location of monitoring the air temperature.
2. Temperature differences from the end of the dryer to the sampling point 19 feet away where they monitor temperature
3. Issues associated with collecting the air temperature from the dryer because of the abrasive characteristics of the solids as the solids "hit" the temperature probe

I explained that during the audit, I was able to "see" where the probe had been inserted through the door, but it was difficult to imagine what the inside of the dryer looked like during operation while the probe was inserted. Together, we thought some additional photos and a video might better explain the items above.

Please find the link below provided by the district to include three photos of inside an "offline" dryer and a video demonstrating their currently process for collecting temperatures of an operating dryer. The video also demonstrates the temperature decline as the solids leave the dryer. I find the photos and video to be very "enlightening" with regards to the temperature changes as well as the issues associated with product temperature.

Fred

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From: Arora, Sid [mailto:SArora@mmsd.com]
Sent: Tuesday, March 28, 2017 11:19 AM
To: Hegeman, Frederick J - DNR
Cc: Unger, Steve
Subject: Dryer

Fred,

Here is the video and the pictures of the dryer temperature monitoring.

https://drive.google.com/open?id=0B8cKbc_RsleQMVBpRnNqRG01b0k

Please let me know if the link works.

Sorry it took longer with finding best way to transmit such a huge file.

We are still working to show step by step probability analysis.

Thanks

Sid Arora, PE

Assistant Manager Contract Compliance

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